

Ukraine, Energy, Climate and Electricity Markets

Harvard Electricity Policy Group
May 5, 2022

WHO WE ARE

R Street Institute is a nonprofit, nonpartisan, public policy research organization. Our mission is to engage in policy research and outreach to promote free markets and limited, effective government.

Deep Expertise

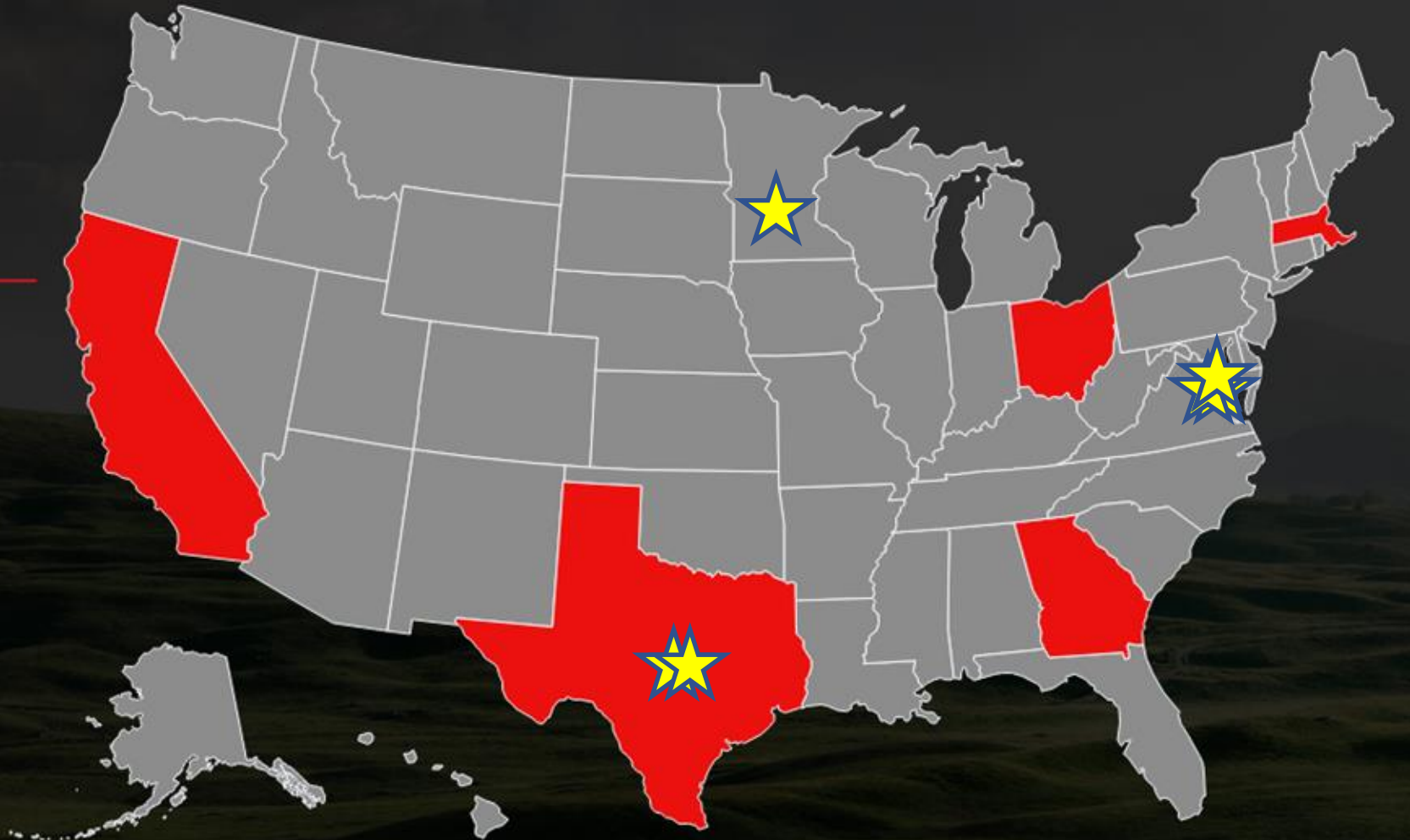
Broad Coalitions

**Victories at the
Margin**



WHERE WE ARE

In addition to our D.C. headquarters, we have offices in Georgia, Texas, Ohio, California and Massachusetts.



 Denotes Energy Staff

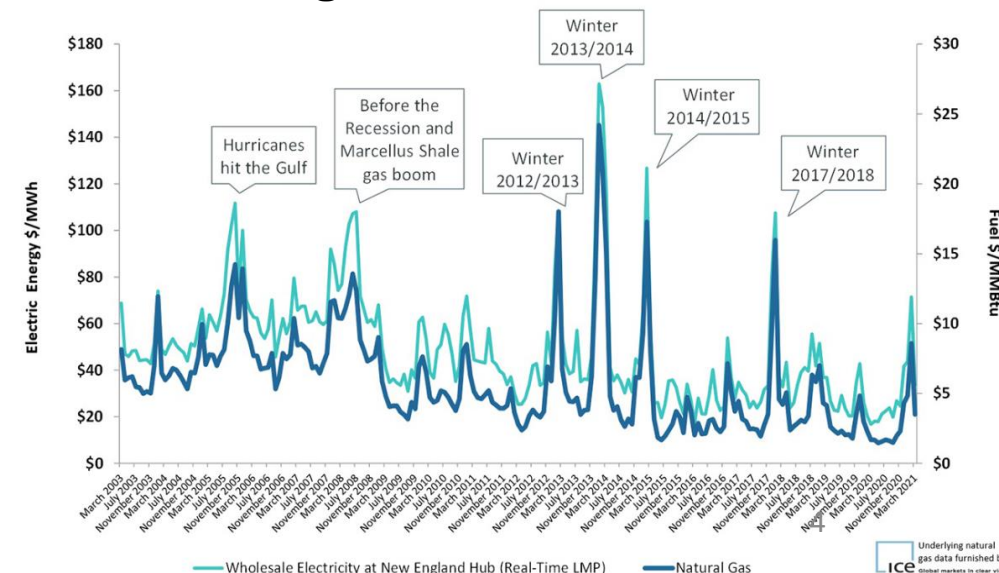
Economics & Politics

- Goal: markets account for climate & energy security risks
 - Stakeholder capitalism era
- Political challenges
 - Prices signal substitutes vs. politics picks winners
 - Efficient prices vs. price spike unpopularity
 - Global lifecycle GHG vs. domestic lens
- Remedy: healthy markets
 - Risk transfer (moral hazard)
 - Define/secure property rights
 - Information symmetry
 - Low entry/exit barriers
 - Low transactions costs
 - Internalize externalities



See <https://www.iso-ne.com/about/key-stats/markets>
<https://www.rstreet.org/2022/03/23/healthy-markets-remedy-energy-and-climate-crises/>

New England Gas & Electric Prices



Natural Gas Schizophrenia

Domestic politics meets global reality, local reliability



Sens. Manchin, Barrasso slam FERC's 'political agenda' on natural gas, say it will stifle development

However, natural gas capacity approvals have surged during Richard Glick's tenure as head of the Federal Energy Regulatory Commission.

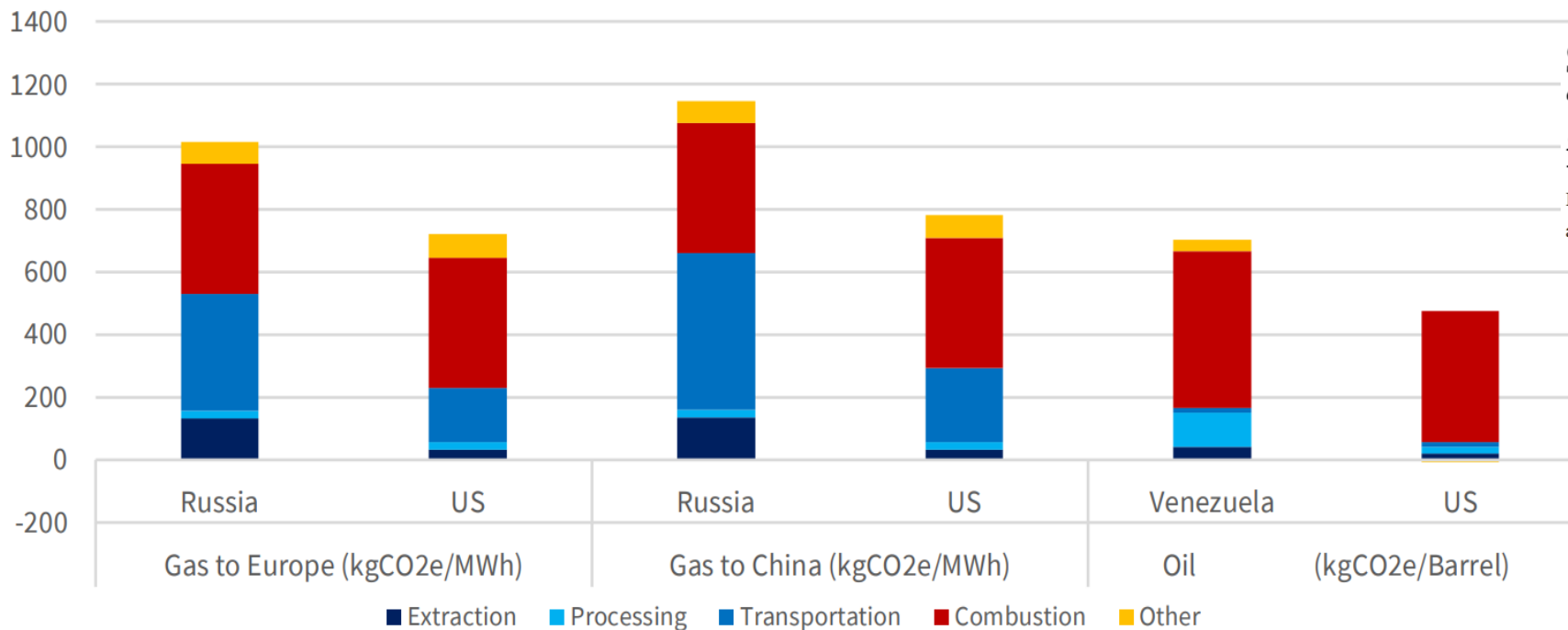


Climate or reliability? FERC blocks Northeast gas project

MARCH 2022

**METHANE QUANTIFICATION:
TOWARD DIFFERENTIATED GAS**

An Assessment of Methane Measurement and Monitoring Technologies



Sources:

Coefficient <https://co2efficient.com/methane>

E&E News: <https://www.eenews.net/articles/climate-or-reliability-ferc-blocks-northeast-gas-project/>

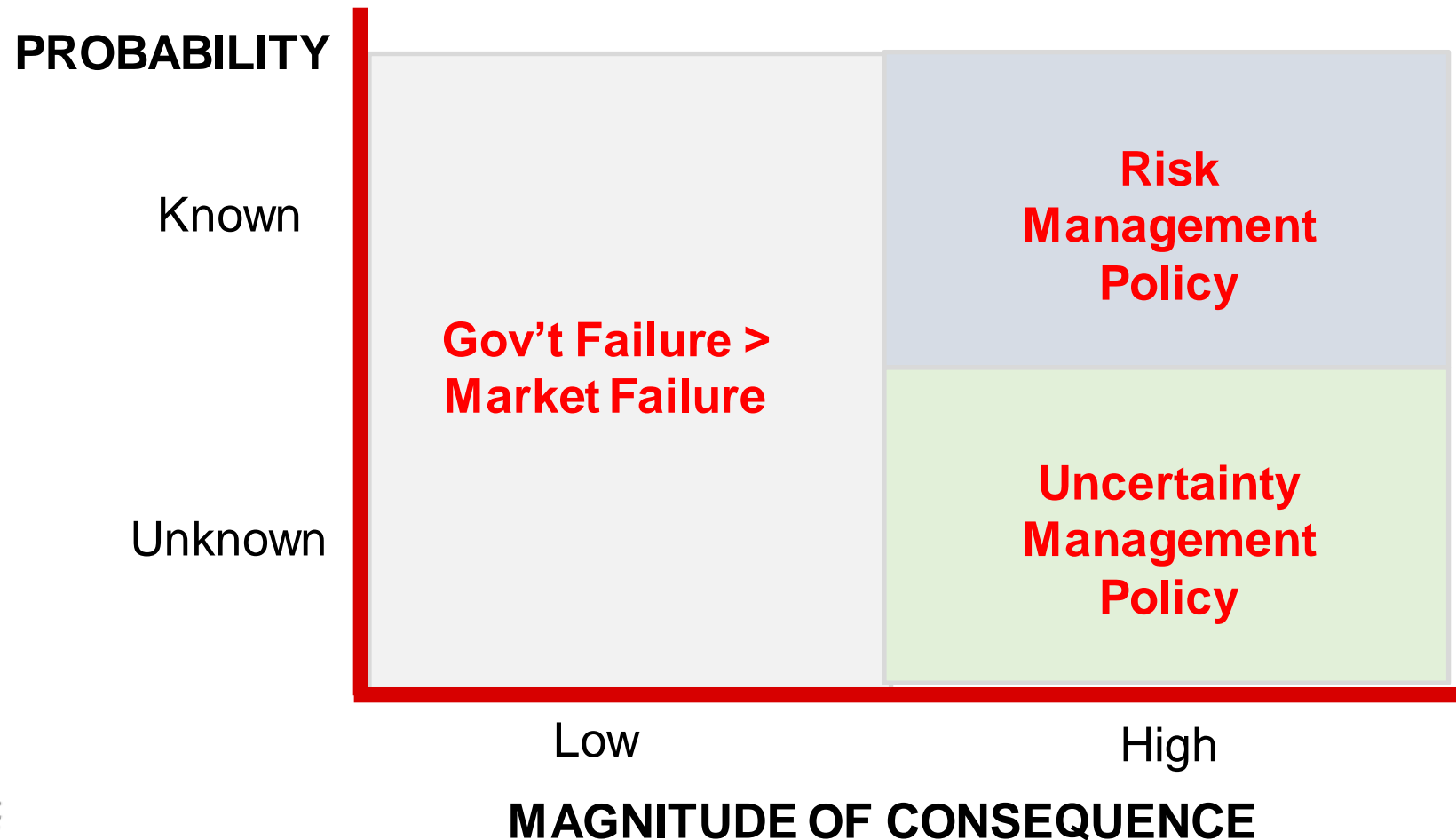
CRES Forum, Carnegie Endowment for Int'l Peace, NETL: <https://cresforum.org/wp-content/uploads/2022/03/U.S.-Fossil-Fuels-Should-Play-a-Crucial-Role-in-Reducing-Global-Emissions.pdf>

UtilityDive: <https://www.utilitydive.com/news/manchin-barrasso-ferc-gas-infrastructure-pipeline-review/619816/>

Stable Climate + Secure Energy

	Do	Do Not	Context
Market Institutions	Integrate gas globally. Expand RTOs, restructure.	Inhibit trade. Socialize risk.	Liquid+fungible markets, supplier assigned risk.
Entry/exit Barriers	Depoliticize, streamline permits. Market design, interconnection.	Micromanage permits. Creative RMRs.	Envir. permitting often retards net envir gains.
Risk Management	Credit/collateral and hedging requirements. Supply chain risk alignment, ISACs.	Price controls. Emergency actions for structural risk, eg DPA.	Manage econ & political risk of price spikes w/o muting signal.
Market Power & Manipulation	Refine elec & gas mitigation. Clarify manipulation.	Inhibit nodal congestion products.	Chilliness dries liquidity. Phys withholding probs.
Environmental Transparency	Granular emissions visibility. Climate reporting guidance w/ private ordering, int'l sync.	Create new liabilities. Deter reporting quality.	Remedies info deficiencies.
Product heterogeneity	Validate envir & reliability differentiated commodities	Misdiagnose greenwashing.	Remedies property rights & high transactions costs
Emissions Pricing	Tax bads, not goods	Asymmetric application. Refund schemes.	Long-term tax revenues increase for debt relief

High Impact, Low Probability Events



Electric Uncertainty

- Revisit resilience economics:
 1. Avoid ad hoc, premature reforms.
 2. Conceptual understanding from end-user perspective.
 3. Economic framework to evaluate bulk power resilience.
 4. Tailor reforms to degree of regional heterogeneity.
- Applications:
 - Reliability metrics & standards reform
 - Frequency → add duration
 - Engineering heuristics → social welfare
 - Differentiated firm service reliability
 - Transmission planning
 - Capacity market design
 - e.g., scenario-based accreditation & zone definitions
 - DER policies

S&P Global

Climate disasters have rendered 'one-in-10' grid standard obsolete, experts say

Thank you!

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